

Under Door Tool Kit Instructions

The Under Door Tool – *occasionally referred to by some suppliers as a “lever opening tool”* – is one of the fastest and most effective ways of entering a target room or facility. Making use of modern workplace codes requiring that doors operate with lever handles (as opposed to round knobs) and the fact that many doors will open without the use of keys or badges if the inside handle is used, these bypass devices are a very powerful and useful addition to one’s penetration testing kit.

However, despite efforts by various manufacturers to produce a compact version of this tool, very few users would consider the most commonly-available Under Door Tools to be highly transportable. They are certainly not a pleasure to contend with while traveling to and from an engagement. It is for this reason that The CORE Group advocates the carrying of a small supply kit instead of a full-size Under Door Tool as part of your Red Teaming gear. Kept at the ready, it is possible to use this supply kit in order to fabricate an Under Door Tool on-site either with found material or with a single piece of rod stock purchased at a local hardware store.

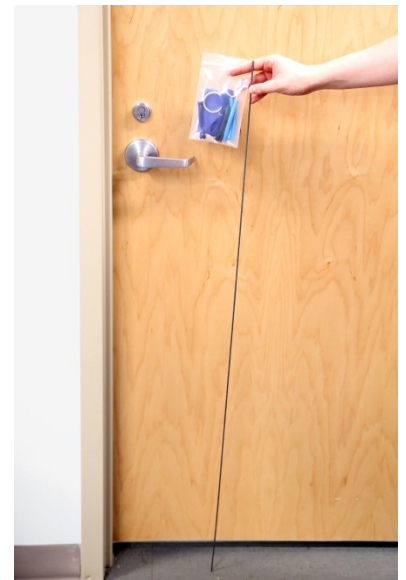
The following pages of this guide offer up a series of suggested steps for making use of The CORE Group Under Door Tool Kit.



Once a target door has been identified, it is possible to fabricate a properly-sized Under Door Tool exclusively from the outer, secure side of the door.

The latch handle’s height and position on the outer side should in almost all instances match the inside. Follow the steps suggested here in order to produce an Under Door Tool for just about any target.

This process can be tackled with an Under Door Kit from The CORE Group’s equipment supply catalog and a metal rod ideally at least 6” longer than the height of the handle as measured from the floor



Rods of this style can be regularly found at hardware stores for very little cost. Four foot lengths are common and tend to be effective.

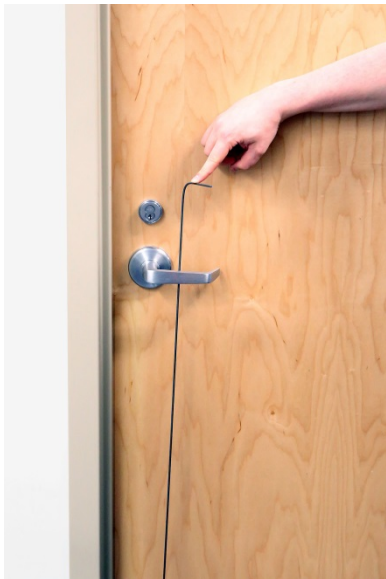




Step One

Begin by making a small bend near one end of the rod.

Approximately 2" of metal should be bent at as near to a 90 degree angle as possible. If you have pliers or a multi-tool they can be a help, but a manual bend by hand can also usually be sufficient.



STEP TWO

Right now, the rod is of course taller than the target door handle. If held against the door, however, the bent portion should be long enough that its tip will reach out beyond the handle.

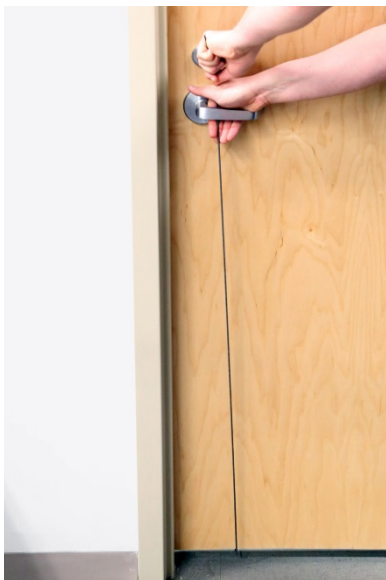
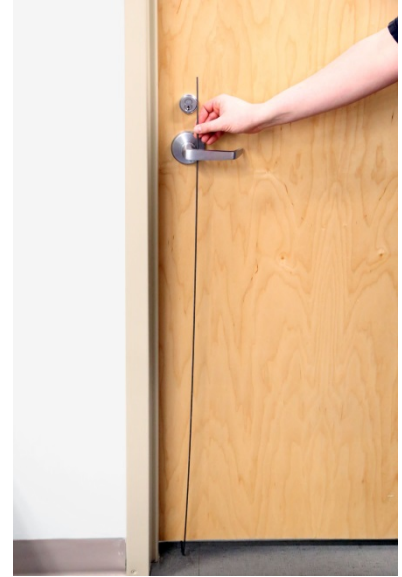
The ultimate purpose of the Under Door Tool is to deliver a string or rope up and over the handle on the inside of the door.



STEP THREE

Flip the tool over so that the bent portion is now down on the floor. The height of the door handle will serve as a guide when you make the upcoming bends at the other end of the rod.

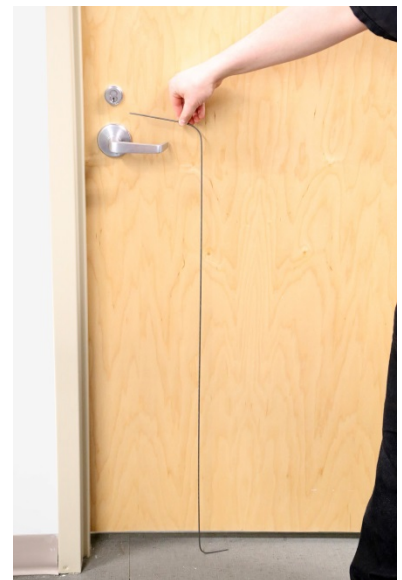
Some people report that it is helpful to slip the already-bent tip of the rod (down at the floor level at this time) under the door and we do not disagree with this practice.



STEP FOUR

Firmly grasp the straight end of the rod and bend it downward, away from the door, making the angle just above the height of the handle. The resulting bend should be close to 90 degrees and as tight as possible.

These two bends in the metal should be directly opposite one another, such that the rod could lay perfectly flat on the ground at this time.





STEP FIVE

Make an additional 90 degree bend in the same end of the rod upon which you were just working. Make this bend approximately two inches closer to the tip than the bend in Step Four.

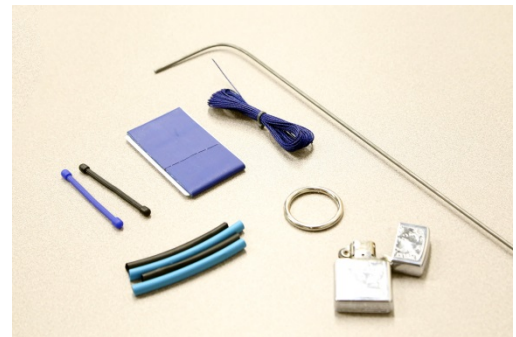
The ultimate aim is to make a rather sharply-defined “U” shape at this end of the Under Door Tool, with the flat bottom portion of the “U” of a width that is close to (but slightly wider than) the thickness of your target door.

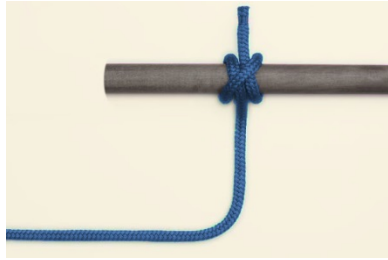


STEP SIX

Flip the rod back over again. The “U” shaped portion is the operator’s handle segment of the Under Door Tool. The small bent portion from Step One is the working end which will ultimately deliver a length of Kevlar cord to the inside handle of the target door.

Unpack your Under Door Kit supplies and prepare to finish the fabrication of this working end.

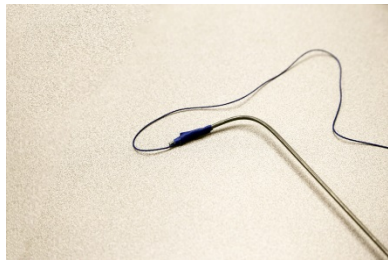




STEP SEVEN

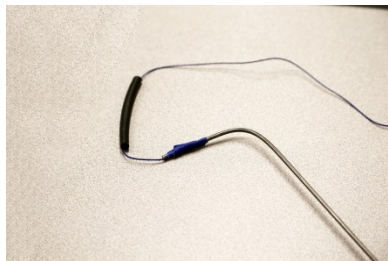
Cut a segment of the Kevlar line approximately 6 feet in length.

Affix it to the working end of your tool with a [clove hitch](#) knot, approximately one half-inch from the tip of the rod.



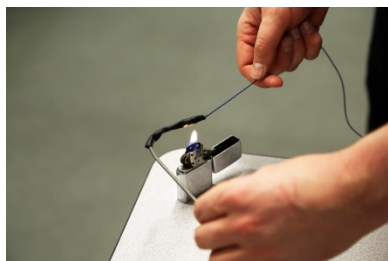
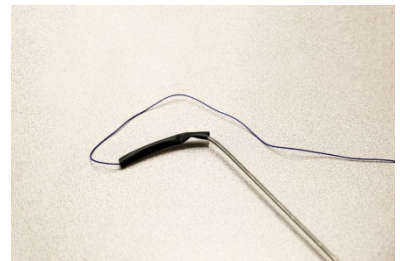
STEP EIGHT

Secure this knot with using a small segment of gaffer's tape. The notion is to both prevent the knot from sliding and also to create a small bump near the working end of the tool which can help to grab target door handles without slipping off.



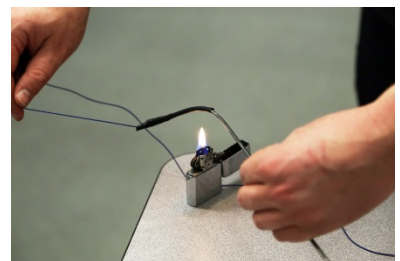
STEP NINE

Feed the free end of the Kevlar cord through a three inch piece of heat-shrink tubing and slide the tubing up and around so that it covers the working end of the Under Door Tool from tip to bend.



STEP TEN

Using either the included source of fire or a personal lighter or heat gun, activate the heat shrink tubing. **NOTE** - Do not apply the flame directly, as this will scorch the rubber, possibly damaging it.





STEP ELEVEN

The metal ring included in The CORE Group's Under Door Kit serves as a handle for the user. It is a great deal easier and more comfortable to pull hard upon the Kevlar line by means of a handle as opposed to simply wrapping the cord around one's hand.

Typically, a [cow hitch](#) is used to quickly flip the Kevlar line around the metal ring using the lanyard looping technique. This easily-slipped knot can be repositioned at will and the handle's location can thus be adjusted quickly and easily.



STEP TWELVE

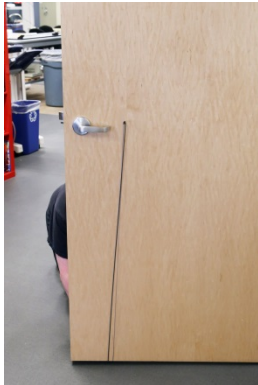
Your Under Door Tool is now complete and has been tailored to the exact size and height necessary for an attempt on the door in question.

Most likely, this whole construction process will not have taken more than a few minutes.

Feel free to use the gear ties included in the CORE Group kit to help police the Kevlar line when the tool is being carried. As you will see when performing these attacks, appropriate management of the cord is essential.

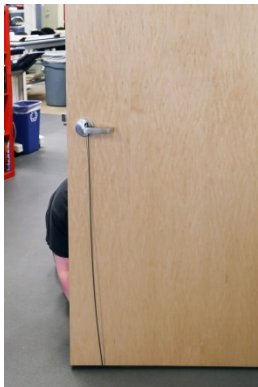
Under Door Tool USAGE

If you have participated in one of The CORE Group's Physical Penetration courses, then chances are you have already gotten some hands-on time with an Under Door Tool and attempted using it. This section, however, serves as a reminder for the basic operation of this very effective entry tool.



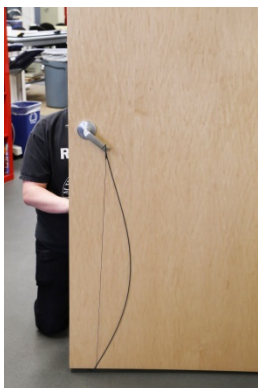
POSITION THE BOTTOM OF THE TOOL

Many users report that simply inserting an Under Door Tool beneath their target door can be the hardest part of its use. Contending with tight spaces, thick carpets, and an inability to see what is happening on the other side are all considerations. However, as long as you take care to not allow your Kevlar line to become tangled and you position the bottom part of the "U" section just beneath the tip of the door handle, things should work out well for you.



POSITION THE TOP OF THE TOOL

With the bottom of the tool in the correct location, a user must then manipulate the handle to swing the arm of the tool toward the door handle. Take care to rock the tool toward you so that the upright rod remains tight against the door's inner side as it moves. You should be able to feel when the working end has struck the inside door handle's shaft.



PULL HARD AND ATTEMPT TO OPEN THE DOOR

Pulling on the Kevlar cord (use the metal ring to help you) should cause the Under Door Tool's upright rod to flex while the rubber-coated working end (rubberized by means of the heat shrink) pulls down on the lever handle on the inside of the target door.

It is often difficult to "hold" the handle in its down position, so be ready to immediately attempt to open the door while pulling on the Kevlar line. Having a second person to assist you can help.



The following series of images show the Under Door Tool attack process from the outside.



POSITION THE BOTTOM OF THE TOOL

Here we see a penetration tester situating an Under Door Tool in exactly the right location. With the handle segment and the bottom of the “U” bend immediately beneath the tip of the door handle (he is estimating the location of the inside handle given the strong likelihood that the inside is a perfect mirror of the outside of the door) he is ready to move the working end into position.



POSITION THE TOP OF THE TOOL

While taking care to keep the Kevlar line out of the way, the penetration tester now swings the upright segment of the Under Door Tool to his right, sweeping it across the inner surface of the door and ultimately landing the working end against the inner edge of the inside door handle.



PULL HARD AND ATTEMPT TO OPEN THE DOOR

And here we see that with a solid pull of the Kevlar line, the inner handle is activated and the latches all retract, allowing the door to open.

NOTE - If an attempt is unsuccessful, it is wise to slide your Under Door Tool back out to your side of the door and inspect it for bends or damage. The upright rod will flex somewhat during use, but if you miss the handle or if the working end slips off while you are pulling, the tool may bend severely. This is not a defeat, of course. Use your hands to adjust the shape of the tool as necessary and make an additional attempt.



ADDITIONAL TIPS

Here are a few more points of which you should be aware when using an Under Door Tool...



USE A PRACTICE DOOR

Often, nearly all of the doors in a facility will be fairly uniform. If construction of a facility happened all at once, chances are that a server room door will be the same as office doors which will be the same as closet doors.

Instead of attempting to attack your target door immediately, consider finding a less secure (and possibly less visible) alternate door to use as practice (and for sizing help while fabricating your tool). Such a door may even be unlocked, allowing you and a partner to communicate freely about how the tool moves and positions itself as you attempt to reach the inside handle.



LOOK THROUGH TO THE OTHER SIDE

If a target door features a window on or near it, this can be a huge help. While it is often not easy for the operator using an Under Door Tool to view the other side, having a partner who can look through such a window will often come in very handy.

Even if no such window is available to you, a snake-cam or endoscope can be repurposed for this task. The CORE Group sells a USB model that can be attached to a laptop or mobile device in order to gain a better perspective on what is happening on the inside of your target door.

BE AWARE OF MOVING DOOR BOTTOMS

Some doors today are equipped with bottom elements that press down and forcefully squeeze against the floor when the door is closed. Sometimes these are mortised up within the door itself, while other times such hardware is an add-on affixed to the door's bottom edge on the inside surface. These door bottoms work by means of a plunger sticking out to the side. When the door swings shut, the plunger is moved by the door frame. This causes the bottom plate to press downward into the floor.

Often, hardware such as this is simply used to improve a door's weather-stripping seal and to make the door more resistant to leaks of temperature or light without dragging the bottom surface along the floor whenever the door opens and closes. However, some variants of this type of hardware are known as Security Door Bottoms and they are designed to specifically thwart Under Door Tool use by interlocking with a contoured floor plate. Even simple weather-stripping door bottoms can make attacks such as this more difficult, but unless a product is designed specifically to function as a Security Door Bottom, it is unlikely that Under Door Tool attacks will be prevented completely.

The following photos show an add-on style moving door bottom. It is not a high security installation, given that no contoured floor plate is present to interlock with the moving plate as it drops down.





